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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,998	04/20/2001	Philip A. Gale	045404.0002	3407

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EXAMINER

ANDERSON, REBECCA L

ART UNIT	PAPER NUMBER
1626	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/838,998	GALE ET AL.	
Examiner	Art Unit	
Rebecca L Anderson	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 April 2004.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 118-140 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) _____ is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) 118-140 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Claims 118-140 are currently pending in the instant application and are restricted as in the following new restriction requirement.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission of the request for reconsideration filed on 31 July 2003 has been entered, however, the previous rejections have been withdrawn in view of the following new restriction requirement of pending claims 118-140.

Election/Restrictions

The Markush group set forth in the claims includes both independent and distinct inventions, and patentable distinct compounds (or species) within each invention. However, this application discloses and claims a plurality of patentable distinct inventions far too numerous to list individually. Moreover, each of these inventions contains a plurality of patentable distinct compounds, also far too numerous to list individually. **For these reasons provided below, restriction to one of the following Groups is required under 35 U.S.C. 121**, wherein a Group is a set of patentable distinct inventions of a broad statutory category (e.g. compounds, methods of use, methods of making, etc.):

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- I. Claims 118-1-40 drawn to compositions comprising a calyx[n]pyrrole macrocycle that has n pyrrole rings linked in alpha positions via sp³ hybridized meso-carbon atoms, wherein neither non-pyrrole substituent of the meso-carbon atoms is hydrogen and wherein n is 5 and the macrocycle is noncovalently-complexed to a molecular or anionic species classified in various subclasses of class 514.
- II. Claims 118-140 drawn to compositions comprising a calyx[n]pyrrole macrocycle that has n pyrrole rings linked in alpha positions via sp³ hybridized meso-carbon atoms, wherein neither non-pyrrole substituent of the meso-carbon atoms is hydrogen and wherein n is 6 and the macrocycle is noncovalently-complexed to a molecular or anionic species classified in various subclasses of class 514.
- III. Claims 118-140 drawn to compositions comprising a calyx[n]pyrrole macrocycle that has n pyrrole rings linked in alpha positions via sp³ hybridized meso-carbon atoms, wherein neither non-pyrrole substituent of the meso-carbon atoms is hydrogen and wherein n is 7 and the macrocycle is noncovalently-complexed to a molecular or anionic species classified in various subclasses of class 514.
- IV. Claims 118-140 drawn to compositions comprising a calyx[n]pyrrole macrocycle that has n pyrrole rings linked in alpha positions via sp³ hybridized meso-carbon atoms, wherein neither non-pyrrole substituent of the meso-carbon atoms is hydrogen and wherein n is 8 and the

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macrocyclic is noncovalently-complexed to a molecular or anionic species classified in various subclasses of class 514.

V. Claims 120-40 drawn to compositions comprising a calyx[n]pyrrole macrocycle that has n pyrrole rings linked in alpha positions via sp³ hybridized meso-carbon atoms, wherein neither non-pyrrole substituent of the meso-carbon atoms is hydrogen and wherein n is 4 and the macrocycle is noncovalently-complexed to a molecular or anionic species classified in various subclasses of class 514.

In addition to an election of one of the above Groups, restriction is further required under 35 U.S.C. 121 as follows:

In accordance with the decisions in *In re Harnisch*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984), restriction of a Markush group is proper where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. In addition, a Markush group may encompass a plurality of independent and distinct inventions where two or more members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the other member(s) obvious under 35 U.S.C. 103.

Where an election of one of Groups I-V is made, an election of a single composition is further required including an exact definition of each substitution on the base molecule (Formula (I)), wherein a single member at each substituent group or

moiety is selected. For example, if a base molecule has a substituent group R1, wherein R1 is recited to be any one of H, OH , COOH, aryl, alkoxy, halogen, amino, etc., then applicant must select a single substituent f R1, for example OH or aryl and each subsequent variable position. In the instant case, upon election of a single composition, the Office will review the claims and disclosure to determine the scope of the independent invention encompassing the elected composition (compositions which are so similar thereto as to be within the same inventive concept and reduction to practice). The scope of an independent invention will encompass all compositions within the scope of the claim which fall into the same class and subclass as the elected compositions, but may also include additional compositions which fall in related subclasses. Examination will then proceed on the elected composition AND the entire scope of the invention encompassing the elected composition as defined by common classification. A clear statement of the examined invention, defined by those class(es) and subclass(es) will be set forth in the first action on the merits. Note that the restriction requirement will not be made final until such time as applicant is informed of the full scope of composition under examination. This will be set forth by reference to specific class(es) and subclass(es) examined. Should applicant traverse on the ground that the compositions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the compositions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other.

All compositions falling outside the class(es) and subclass(es) of the selected compositions and any other subclass encompassed by the election above will be directed to nonelected subject matter and will be withdrawn from consideration under 35 U.S.C. 121 and 37 C.F.R. 1.142(b). Applicant may reserve the right to file divisional applications on the remaining subject matter. (The provisions of 35 U.S.C. 121 apply with regard to double patenting covering divisional applications.)

Applicant is reminded that upon cancellation of claims to a nonelected invention, the inventions must be amended in compliance with 37 C.F.R. 1.48(b) if one of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 C.F.R. 1.48(b) and by the fee required under 37 C.F.R. 1.17(i).

Markush claims must be provided with support in the disclosure for each member of the Markush group. See MPEP 608.01(p). Applicant should exercise caution in making a selection of a single member for each substituent group on the base molecule to be consistent with the written description.

Definition of How inventions are related

Inventions I-V are related as independent and distinct products which vary materially in structure and composition. The level of skill in the art is not such that one invention would be obvious over the other invention.

Rationale Establishing Patentable Distinctiveness Within The Groups

The Groups listed above is directed to compositions which are recognized in the art as being distinct from one another because of their diverse chemical structure, their

different chemical properties, modes of action, different effects and reactive conditions (MPEP 806.04, MPEP 808.01). Additionally, the level of skill in the art is not such that one invention would be obvious over the other invention (Group), i.e. they are patentable over each other. Chemical structures which are similar are presumed to function similarly, whereas chemical structures that are not similar are not presumed to function similarly. The presumption even for similar chemical structures though is not irrebuttable, but may be overcome by scientific reasoning or evidence showing that the structure of the prior art would not have been expected to function as the structure of the claimed invention. Note that in accordance with the holding of Application of Papesch, 50 CCPA 1084, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and In re Lalu, 223 USPQ 1257 (Fed. Cir. 1984), chemical structures are patentably distinct where the structures are either not structurally similar, or the prior art fails to suggest a function of a claimed compound would have been expected from a similar structure.

In addition, because of the plethora of classes and subclasses of each Group, a serious burden is imposed on the examiner to perform a complete search of the defined areas. Therefore, because of the reasons given above, the restriction set forth is proper and not to restrict would impose a serious burden in the examination of this application.

A telephone call was made to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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